

MHI
Copy 3

FM 17-22

WAR DEPARTMENT

**ARMORED FORCE FIELD
MANUAL**



RECONNAISSANCE BATTALION

AUGUST 18, 1942

FM 17-22

**ARMORED FORCE FIELD
MANUAL**

RECONNAISSANCE BATTALION



**UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1942**

WAR DEPARTMENT,
WASHINGTON, August 18, 1942.

FM 17-22, Armored Force Field Manual, Reconnaissance Battalion, is published for the information and guidance of all concerned.

[A. G. 062.11 (7-14-42).]

BY ORDER OF THE SECRETARY OF WAR:

G. C. MARSHALL,
Chief of Staff.

OFFICIAL:

J. A. ULIO,
*Major General,
The Adjutant General.*

DISTRIBUTION:

D 2, 7 (5); D 17 (20); IR 2, 5, 7, 8 (5); Bn and H 17 (10); IBn 2, 5-10 (3); C 17 (5); IC 2, 5-11 (3).

(For explanation of symbols see FM 21-6.)

TABLE OF CONTENTS

SECTION I. General.	Paragraph	Page
Purpose.....	1	1
Mission.....	2	1
Support.....	3	2
Organization.....	4	2
Method of employment.....	5	2
II. Training.		
General.....	6	3
Procedure.....	7	3
III. Control, orders, liaison.		
Control.....	8	4
Orders.....	9	9
Liaison.....	10	10
IV. Maintenance.		
General.....	11	11
Battalion maintenance platoon.....	12	11
Maintenance plan.....	13	11
V. Evacuation.		
General.....	14	12
Battalion medical detachment.....	15	12
Plan for employment of battalion medical detachment.....	16	13
VI. Marches and security.		
General.....	17	17
March procedure.....	18	17
March security.....	19	21
Security at the halt.....	20	27
Security in bivouac.....	21	31
VII. Information and reports.		
General.....	22	32
Information sought.....	23	32
Collecting and recording informa- tion.....	24	33
Transmittal of information.....	25	33
VIII. Offensive combat.		
General.....	26	33
Advance to contact.....	27	33
Cooperation with regimental re- connaissance.....	28	37
Action in a penetration.....	29	39
Envelopment.....	30	39
Seizing critical areas.....	31	39
Pursuit.....	32	39
IX. Defensive action and retrograde move- ments.		
General.....	33	41
Counterreconnaissance.....	34	41
Defense of a position.....	35	41
Retrograde.....	36	41
X. Special operations.		
Attack of a river line.....	37	42
Defense of a river line.....	38	46
Operations in jungle.....	39	47
Desert warfare.....	40	51

RECONNAISSANCE BATTALION ARMORED FORCE FIELD MANUAL

SECTION I

GENERAL

■ 1. PURPOSE.—*a.* The purpose of this manual is to outline general methods of training and employing the reconnaissance battalion of the armored division. Tactical employment of the reconnaissance company is covered in FM 17-20, and that of the tank company in FM 17-32. The subject of reconnaissance in general is covered in FM 100-5 and FM 17-10.

b. This manual is intended as a guide only. It is not expected that it will be followed blindly. Rigid application of a fixed set of rules is highly undesirable. Each situation must be solved on its own merits. Individual initiative must be encouraged.

c. Following is a key to symbols used in illustrations in this manual:

	CAR, HALF TRACK
	GUN, ASSAULT, SELF-PROPELLED
	CAR, ARMORED, RECONNAISSANCE
	TRUCK, $\frac{1}{4}$ TON
	MOTORCYCLE, SOLO
	TANK
	COMBAT COMD, ARMD DIV

■ 2. MISSION.—*a.* The primary mission of the reconnaissance battalion is, in conjunction with observation aviation, to furnish the division commander with information upon which to base a decision for employment of the division.

Before any other mission is assigned, a careful estimate should be made as to the probable effect on this primary mission.

b. Additional missions that may be assigned are counter-reconnaissance, security, and combat. The reconnaissance battalion is not given the mission of covering development of the division or its elements. Such mission would interfere seriously with the primary mission of reconnaissance. Such covering is incidental to reconnaissance and counterreconnaissance.

■ 3. SUPPORT.—a. Depending upon its mission, terrain, width of zone, and the enemy situation, the reconnaissance battalion may be reinforced by engineers, infantry, artillery, tank destroyers, and air bombardment. Observation aviation attached to an armored division habitually cooperates with the reconnaissance battalion.

b. When numerous streams are to be crossed and the terrain is otherwise difficult, one or more companies of engineers should be attached.

c. When the battalion is given counterreconnaissance, security, or combat missions, infantry and artillery may be attached. Combat aviation if available, should be in support.

d. When the reconnaissance battalion is given a mission of seizing and holding critical points it should be relieved at the earliest practicable moment by other troops in order that it may perform its primary mission of reconnaissance.

■ 4. ORGANIZATION.—The battalion is composed of a battalion headquarters and headquarters company, three reconnaissance companies, and a tank company. For details of organization see current Tables of Organization.

■ 5. METHOD OF EMPLOYMENT.—a. The reconnaissance battalion operates under direct orders of the division commander. Rarely will it or any of its elements be attached to other units of the division, as this will dissipate its strength.

b. Clearly defined missions must be assigned. If two or more missions are assigned, the *primary* mission must be indicated.

c. A zone of reconnaissance is assigned. This varies with the terrain, road net, mission, and enemy situation. A zone

30 to 50 miles in width may be reconnoitered at a speed of 10 to 15 miles per hour. (See FM 17-10 and FM 17-20.)

d. The battalion may reconnoiter as far as 150 miles in front of the division. This distance, however, will be exceptional. Normally the reconnaissance battalion will not precede the division by more than 100 miles.

SECTION II

TRAINING

■ 6. GENERAL.—a. Tactical training of the battalion as a whole commences near the end of the company training period. The company should have completed each phase of training as listed below before such phase is scheduled for battalion training. During company training periods the battalion commander and his staff, in addition to supervising training, prepare tactical exercises for the battalion. Battalion headquarters should hold frequent command post exercises. Combined operations with other units, air, infantry, tank, artillery, tank destroyer, and engineer, should be held when practicable.

b. The battalion as a whole, in addition to company training (see FM 17-20), should be trained in—

Marches.

Security.

Collection of information and reports.

Offensive action.

Defensive action.

Retrograde movements.

Special operations.

■ 7. PROCEDURE.—a. To be of value in training, exercises must be carefully planned and vigorously executed. Plans for an exercise must be made well in advance and not left to the last moment. (See FM 21-5.)

b. The following is a guide to steps taken in preparation of field exercises:

(1) Decide upon the type of exercise (par. 6) and the particular points of such exercise that are to be emphasized.

(2) Make a map reconnaissance to determine suitable terrain for the exercise and find out if that terrain is available at the time desired.

(3) Plan the exercise on the map. Make a terrain reconnaissance of the area. Next, with the staff, war-game the exercise on the map until satisfied that the situation is sound and that the points to be emphasized will be brought out.

(4) The exercise should then be played as a war game by the battalion commander, his staff, and the company officers. At this time company commanders and junior officers should be required to make decisions and issue orders. Interest is maintained by injecting various small situations requiring immediate decision and action.

(5) The exercise is next played on the terrain. Before proceeding in the exercise, make sure that all equipment and personnel are complete as far as available. From the time the unit moves from the vehicle park until the end of the problem, each individual must understand that he is to act as though he were under actual combat conditions. Toleration of any laxity will invariably lead to poor performance in the exercise and a consequent loss in training time.

(6) After the exercise, hold a critique at which the exercise is explained. Bring out the good and bad points of performance. Where solutions were in error point out a correct solution. Do not try to hold to one solution if others may be equally good. Care must be taken not to ridicule the work of individuals.

c. In all problems try to inject realism. Whenever possible use a two-sided maneuver. In any case outline the enemy position with small groups.

SECTION III

CONTROL, ORDERS, LIAISON

■ 8. CONTROL.—Control is exercised by giving definite orders, by use of radio and messengers, and by use of zones, boundaries, axis of advance, and phase lines.

a. *Radio*.—(1) The battalion is amply equipped with long and short range radio sets for communication within the battalion, to higher headquarters, and with supporting air units.

(2) When voice radio is used, and it is used for all short distance radio communication, the commander or his staff

officers must use it in person. For long range operation, messages are sent by key and usually in code.

(3) Figure 1 shows the battalion radio net. By use of different crystals these nets may be changed to meet any situation.

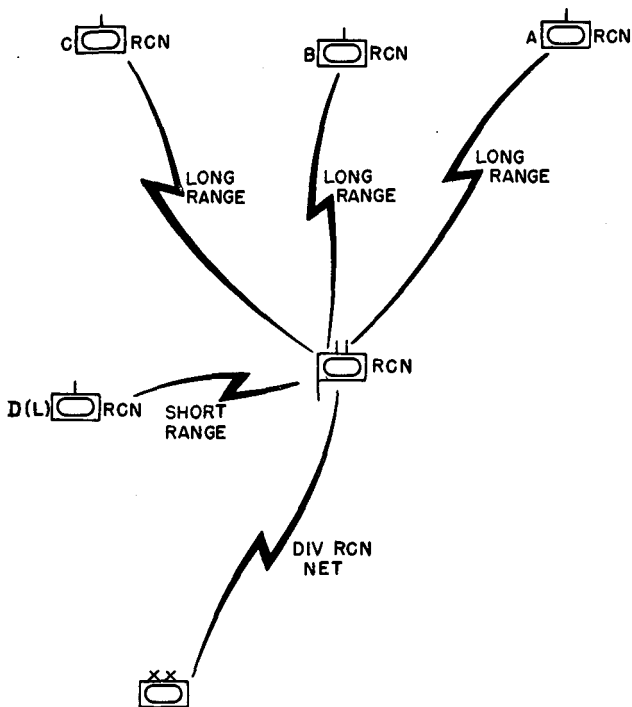


FIGURE 1.—Radio nets, reconnaissance battalion.

(4) Strict radio discipline must be maintained. Messages must be brief.

(5) For radio identification codes see current Signal Operations Instructions. FM 17-20 also covers radio identification codes.

(6) Do not send orders or information in the clear when the information to be transmitted, if intercepted by the enemy,



FIGURE 2.—Airplane message pick-up field. Do not place pick-up field near the CP; the enemy may find it.



FIGURE 3.—Airplane message pick-up field. Place pick-up field away from CP and use messenger to take message to panel personnel.

can be acted upon in time to influence the situation in question. Do not send messages in code and repeat any part in the clear. Brevity codes may be used for certain messages. For rules governing radio security, see FM 24-5.

b. Messengers.—Use messengers for short distances, as they will be faster than radio. There are only a few messengers in the battalion headquarters, so use them sparingly. A messenger sent to division headquarters 50 miles away will probably not return within 4 hours.

c. Panels and pick-up and drop messages.—(1) The use of pick-up and drop messages is convenient for transmission of overlays, maps, and aerial photographs. The slow-flying liaison airplane is valuable for this service. Do not have the pick-up field near the CP. The enemy observation may find it. For use of panels see FM 24-5.

(2) When radio silence is essential, when radio communication has broken down, or when it is necessary to identify location of the CP or pick-up field to the air observer, panels may be used.

d. Zones, boundaries, axis of advance.—Direction and lateral extent of movement is controlled by designation of zones of advance and boundaries, or by giving an axis of advance and a frontage. The division commander designates a zone for the battalion. The battalion commander divides the zone into zones for his companies. (See fig. 4.)

e. Phase lines.—The rate of advance is controlled and coordination is obtained by designating phase lines and report lines. These are easily identified terrain features on the route of advance. The battalion commander prescribes the time leading elements of the companies will pass the phase lines. Companies report when they reach and pass a phase line.

■ 9. ORDERS.—*a.* Orders are usually oral. They may be, and usually are, supplemented by use of marked maps, overlays, or aerial photographs. A sketch such as figure 4 might well be issued as part of the order for an advance. Orders follow the form given in FM 101-5. They must be short and clear. Missions must be unmistakably stated.

b. Clear orders are necessary for correct execution. Every officer must strive by continuous practice to make himself

perfect in the issuance of such orders. Thorough training in this subject should be given during the war game period of preparing tactical problems.

■ 10. LIAISON.—*a.* The use of liaison officers must be habitual. Reconnaissance battalion headquarters has one liaison officer who remains at division headquarters. This officer must know the plans of the battalion commander. He must keep the battalion commander informed of any changes in division plans. His duties are prescribed in FM 101-5.

b. Each combat command sends one liaison officer to the CP of the reconnaissance battalion. This officer must know the plans of the combat command commander. He keeps this commander informed on the situation as found by the reconnaissance battalion. He should have a radio set for communication with the combat command and should also be provided with messengers.

c. The reconnaissance company of the armored regiments should maintain liaison personnel at the CP of the reconnaissance battalion. This also applies to the infantry regiment when it is leading the division. As the combat command closes on the reconnaissance battalion, its liaison party joins that company of the reconnaissance battalion in the zone of advance of the combat command. When the regimental reconnaissance company operating with the combat command closes on the reconnaissance battalion, the liaison party joins the company commander and furnishes him all information available.

d. Artillery liaison officers from the combat commands should also join the reconnaissance battalion and remain with it until the combat command closes on the reconnaissance battalion. By this means the artillery will gain early information of positions, terrain, and targets. The liaison officer is also able to give necessary information to any supporting artillery that may be detailed to assist the reconnaissance battalion.

e. The engineer reconnaissance platoon of the headquarters company, engineer battalion, accompanies the reconnaissance battalion. It performs reconnaissance and liaison functions.

SECTION IV

MAINTENANCE

■ 11. **GENERAL.**—Each company of the reconnaissance battalion has a maintenance section which performs second echelon maintenance for the company. In addition, the battalion headquarters company has a maintenance platoon which performs second echelon maintenance for the battalion as a whole. The battalion may be reinforced by elements of the division maintenance battalion. In combat the distinction between echelons of maintenance is slight. Each maintenance unit does such work, with the tools, spare parts, and mechanics available, as time and the tactical situation permit. Company maintenance will not undertake work so extensive that service to a large number of other vehicles is prevented. Vehicles must be kept rolling. FM 17-50 covers in general the subject of maintenance.

■ 12. **BATTALION MAINTENANCE PLATOON.**—This platoon is organized into a platoon headquarters, two maintenance sections, a maintenance section (trains), and a wrecker section. When the battalion is advancing, with two companies leading, a maintenance section is assigned to each of the two leading companies. When three reconnaissance companies are leading, the train section will service the center company.

■ 13. **MAINTENANCE PLAN.**—*a.* Before starting an operation, the battalion commander, after acquainting his staff with plans for employment of the battalion, calls upon the maintenance officer for a plan of maintenance. The plan is based upon a maintenance estimate of the situation which includes—

(1) *Probable enemy resistance.*—If enemy resistance is expected to be heavy, maintenance needs will be high. If resistance is expected to be light, maintenance needs will probably be low.

(2) *Terrain.*—Rough terrain will increase maintenance needs.

(3) *Width of zone.*—If the zone of advance is wide, the work of maintenance detachments will be made difficult, owing to the long distances which they must travel to reach disabled vehicles.

b. When maintenance requirements are expected to be heavy, request should be made for attachment of maintenance elements from the division maintenance battalion. The division maintenance battalion commander, after receiving recommendations of the reconnaissance battalion commander, recommends to the division commander such attachments as are deemed necessary.

c. The maintenance plan includes—

(1) Axis of maintenance.

(2) Support of companies by battalion maintenance personnel, or attachment of such personnel to companies.

(3) Use of attached maintenance personnel from the division maintenance battalion.

(4) Maintenance supplies and spare parts needed beyond those carried habitually.

(5) Method of reporting disabled vehicles to the maintenance platoon (this may be SOP). The battalion maintenance officer arranges with company maintenance officers a definite system for locating and reporting disabled vehicles. These reports may be by radio or by messenger to the company axis of maintenance. The company officer in turn notifies the maintenance section following the company.

(6) Method of evacuation of vehicles disabled beyond capabilities of the maintenance platoon to repair, or for which there is no time for repair.

(7) Instructions on stripping and destroying disabled vehicles that are in danger of being captured.

SECTION V

EVACUATION

■ 14. GENERAL.—The reconnaissance battalion has only a small medical detachment. Frequently the battalion will be reinforced with medical personnel from the division medical battalion. FM 17-50 and FM 8-5 cover in general the subject of evacuation of casualties from armored units.

■ 15. BATTALION MEDICAL DETACHMENT.—The battalion medical detachment is equipped with three half-track personnel carriers M3, without armament, fitted to hold four litter cases; three ¼-ton trucks; and a 2½-ton truck. For specific organization see current Tables of Organization.

■ 16. PLAN FOR EMPLOYMENT OF BATTALION MEDICAL DETACHMENT (FM 8-10).—*a. Scope.*—The battalion surgeon prepares and submits to the battalion commander a plan of evacuation of casualties. This plan is based upon the plans of the battalion commander for employment of the battalion, the enemy situation, and an estimate of medical needs of the battalion. This plan may be largely standing operating procedure and includes—

Axis of evacuation.

Establishment of aid station.

Detail of medical personnel to companies.

Disposition of casualties.

Support needed from the division medical battalion.

Medical supply.

b. Axis of evacuation.—This coincides with the battalion axis of communication and maintenance. When casualties cannot be sent directly to the division medical battalion, they may be collected at points on this axis, where they are later evacuated by division or higher units.

c. Aid station.—Formal aid stations are rarely established because of rapid movement of the battalion. The battalion surgeon, with the 2½-ton truck,* stays near the battalion CP. He causes casualties to be collected at this point, and either sends them to the rear in supply vehicles returning for refill, or holds them under cover for the arrival of medical battalion units.

d. Detail of medical personnel to companies.—One medical officer, with personnel in a half-track personnel carrier and a ¼-ton truck, is usually detailed to accompany each leading reconnaissance company. The remainder of the detachment stays with the battalion reserve. On the march the third half-track carrier moves at the rear of the column just in front of the last maintenance vehicle. When the CP is established at a halt, this half-track joins the battalion surgeon. When the reserve reconnaissance company or the tank company goes into action, this half-track carrier accompanies them to care for casualties. Medical personnel detailed to the companies march with the company headquarters. They receive reports of casualties from the company commander, move to the point where such casualties

occur, administer what medical aid they can, and either place the casualties in their half-track carrier or report the location of such casualties, by means of the reconnaissance company radio, to battalion headquarters.

e. Disposition of casualties.—(1) First aid is administered by other members of the crew. The casualty is then either carried on in the vehicle, or removed from the vehicle and placed where he can be readily found. The position should be marked, and the location is then reported to the company commander who, in turn, reports it to the medical detachment as in *d* above. In a situation where wounded would not receive treatment for a long period if left along the route, they must be carried in the vehicle.

(2) Collecting points for casualties are designated by the battalion surgeon along the axis of evacuation, where casualties are sent by any means available, such as returning supply vehicles, $\frac{1}{4}$ -ton trucks, etc. If all casualties have not been collected during the day they must be collected as soon as practicable after dark.

(3) At collecting points on the axis of evacuation, additional treatment within means of the medical detachment is given, and casualties are either sent to the rear in supply vehicles returning for refill, or by division medical units, or they await arrival of division medical units.

(4) The half-track personnel carriers of the medical detachment are not used to evacuate casualties to rear installations.

f. Support by division medical battalion.—When it is expected that the casualty rate will be high, the battalion medical detachment should be supported by elements of the division medical battalion.

g. Medical supply.—Medical supplies are sent forward on battalion supply vehicles or by vehicles of the medical battalion. The battalion surgeon makes requests for such supplies on the division surgeon.



FIGURE 5.—First aid being administered by vehicle crews. Seriously wounded casualties are removed from vehicles and made as comfortable as possible, and their position is marked and reported to the company commander.



FIGURE 6.—Medical detachment half-track going to place where casualties have been placed. Further medical attention is administered, and casualties are loaded into half-track.

SECTION VI

MARCHES AND SECURITY

■ 17. **GENERAL.**—The subject of marches is covered in detail in FM 17-10, FM 17-50, and FM 25-10. The reconnaissance battalion will rarely march as a unit. Marches for the reconnaissance company are covered in FM 17-20 and for the tank company in FM 17-32. This section is concerned primarily with the march operation of the battalion headquarters and the battalion reserve.

■ 18. **MARCH PROCEDURE.**—*a. Serials.*—The reconnaissance battalion, less detachments on reconnaissance missions, moves by bounds along the axis of advance. (See fig. 4.) It may march in one or more serials. When movement is in two serials, the forward echelon of battalion headquarters, the reserve reconnaissance company, and the tank company form the leading serial; while the rear echelon of battalion headquarters and the trains, less those elements with the reconnaissance companies and the division trains, form the second serial. These serials may march together, or the rear serial may move by bounds some distance in rear of the leading serial.

b. Formation.—Figure 7 gives one march formation. This formation provides security for the reserve and, by placing the tank company well forward in the column, permits early commitment of that company to action without its having to double the column of the reserve reconnaissance company.

c. CP locations.—(1) Prior to the march, the battalion commander by use of available maps and aerial photographs tentatively selects locations for the CP along the axis of advance. Such locations should afford concealment. Large woods close to the route of advance are satisfactory. Small isolated patches of woods are avoided as they will draw attention of hostile aircraft and may be death traps. Avoid crossroads. They not only draw the attention of enemy aircraft but also afford hostile routes of approach from the flanks.

(2) The CP must be well forward in order to keep in close touch with the reconnaissance companies. It should never

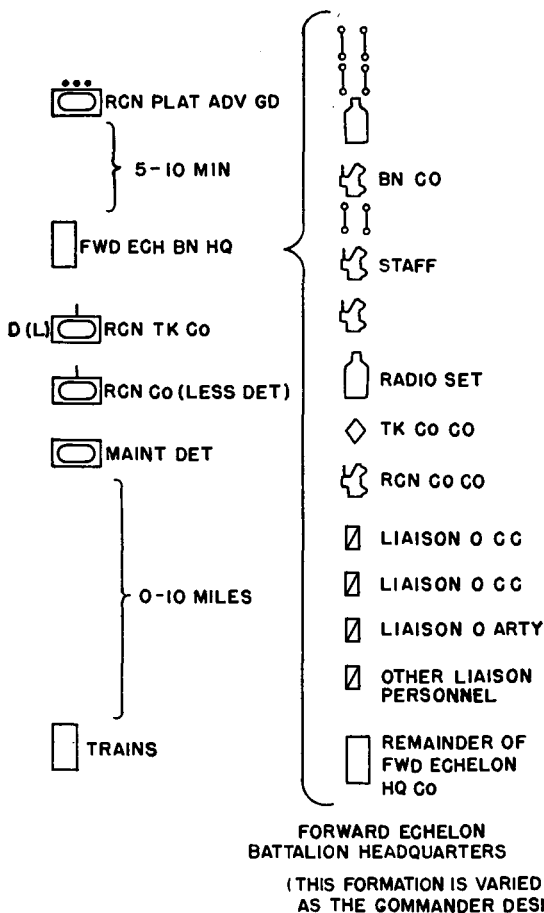


FIGURE 7.—One formation for the reconnaissance battalion reserve.

be farther than 10 miles to the rear of the line of company CP's and more often will be within 2 or 3 miles of that line. It should not be so far forward that the reserve cannot be shifted laterally without turning around to find a lateral

road. This is determined by map study and by reports from reconnaissance companies.

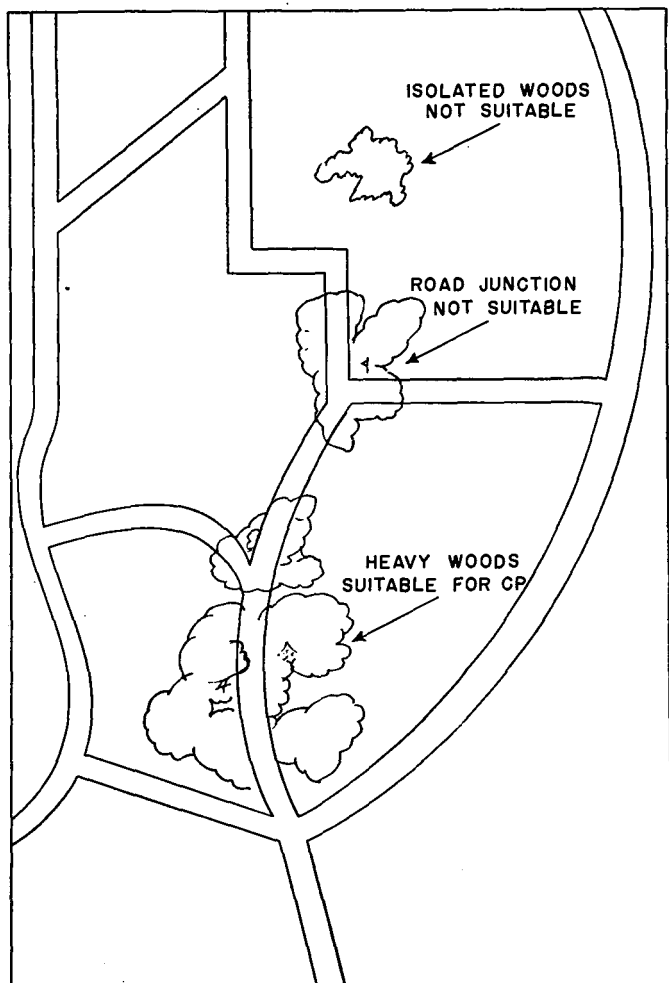


FIGURE 8.—Selection of CP's.

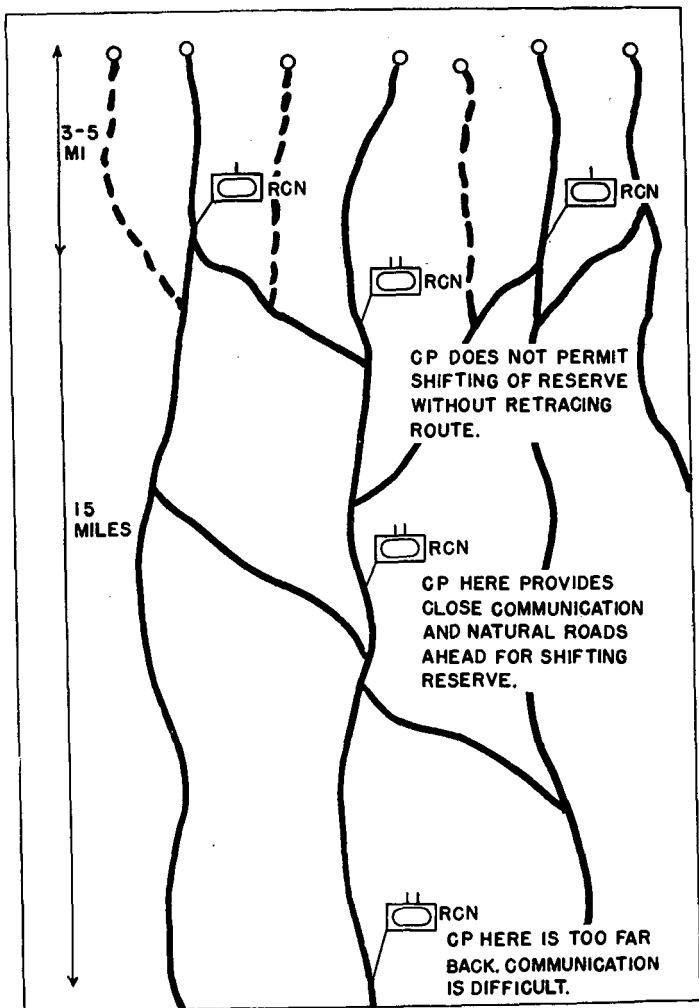


FIGURE 9.—Do not keep CP back where communication with reconnaissance companies will be difficult. Do not have it so far forward that lateral movement of the reserve will be difficult.

■ 19. MARCH SECURITY.—Because of its exposed position the reconnaissance battalion must take special measures for security on the march. Security for the reconnaissance companies is covered in FM 17-20. Reconnaissance itself is the best security for the battalion. Although elements of the reconnaissance companies have traversed the route over which the battalion is advancing, this does not excuse the battalion reserve from marching with an advance guard and taking measures for flank and rear protection. The fast-moving reconnaissance patrols will be unable to search all the country between the roads. An enemy may hold troops concealed in heavy woods, allow the reconnaissance patrols to move through uninterrupted, and then attack the reserve. He may put in road blocks after reconnaissance patrols pass.

a. Security from ground attack.—Protection from ground troops is obtained by employing a small advance guard, usually a reconnaissance platoon, and by patrolling side roads to a distance of about 2 miles from the route of advance. The tank company marching immediately in rear of the battalion CP is in a position to deploy at once and attack any unexpected hostile resistance.

b. Security from air attack.—(1) Effectiveness of air attack is reduced by marching with at least 70 yards between vehicles, by use of all antiaircraft weapons to drive off attacking hostile aircraft, and by an air warning system. At all halts, individuals dig slit trenches. Air sentries are detailed for each vehicle, and a system of warning is instituted. This system includes all elements of the battalion. The reconnaissance companies reconnoitering in the zone of advance send in information of hostile airplanes sighted. This information includes time, number of airplanes, type, location, height, and direction of flight. This information may be sent by simple code as follows:

0915 10 DB SE 10,000 F20R5 CO CO A

Any prescribed code may be used. The message above would be read as follows: "At 9:15 AM, 10 dive bombers were sighted flying southeast at 10,000 feet. My position is 20 miles forward of the map code reference point and 5 miles to the right. (Signed) CO, Co. A." The battalion commander,

knowing the location of Company A, immediately knows from which direction to expect an attack and gives warning accordingly. Remember at 250 miles per hour the airplanes

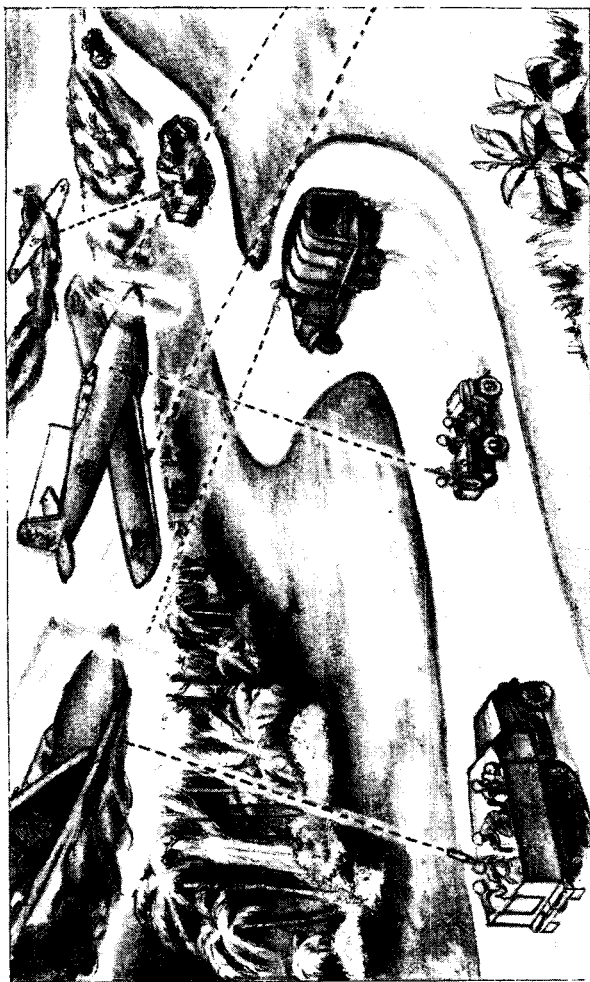


FIGURE 10.—Keep some anti-aircraft guns aimed to fire at hostile airplanes that may fly low over trees. Arrangements are made for some platoons to watch and aim guns to the front and right, others to the left and rear.

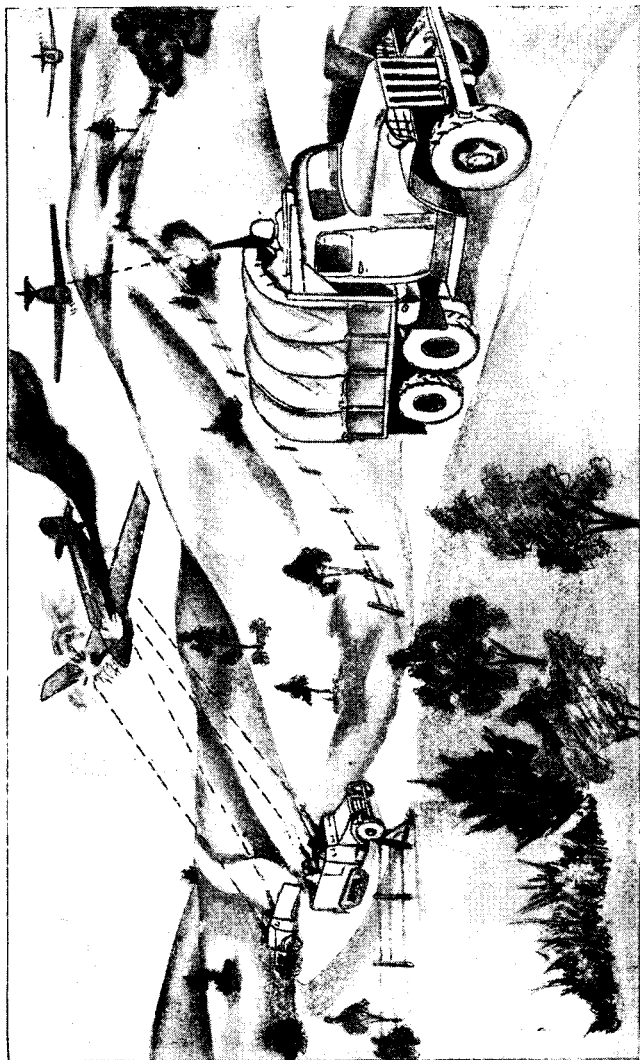


FIGURE 11.—Aim guns to fire on hostile airplanes attacking low over hills.

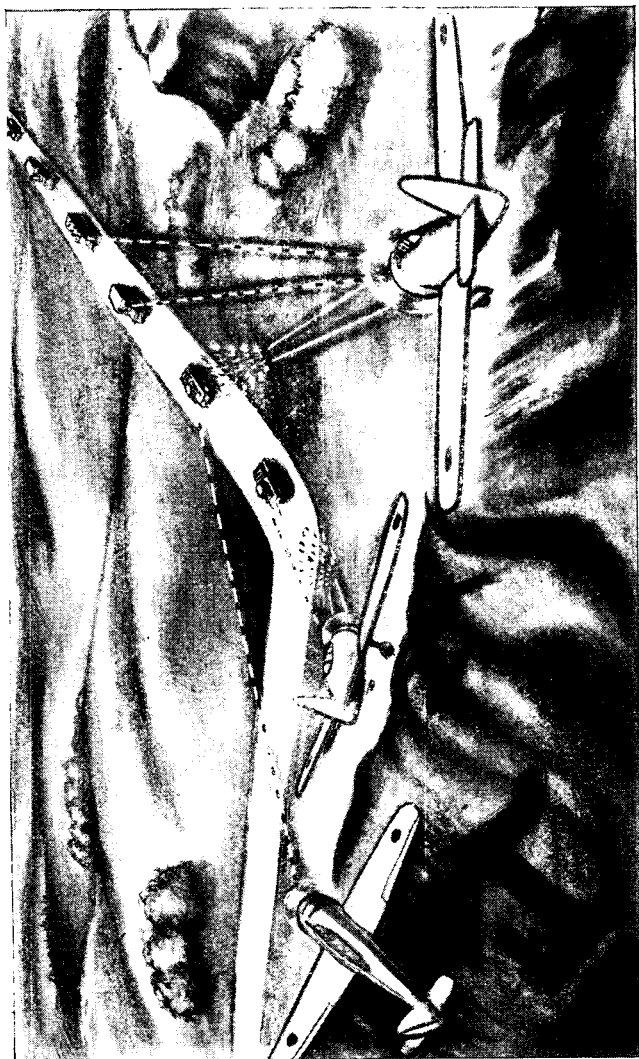


FIGURE 12.—Airplanes may attack down a straight stretch of road.

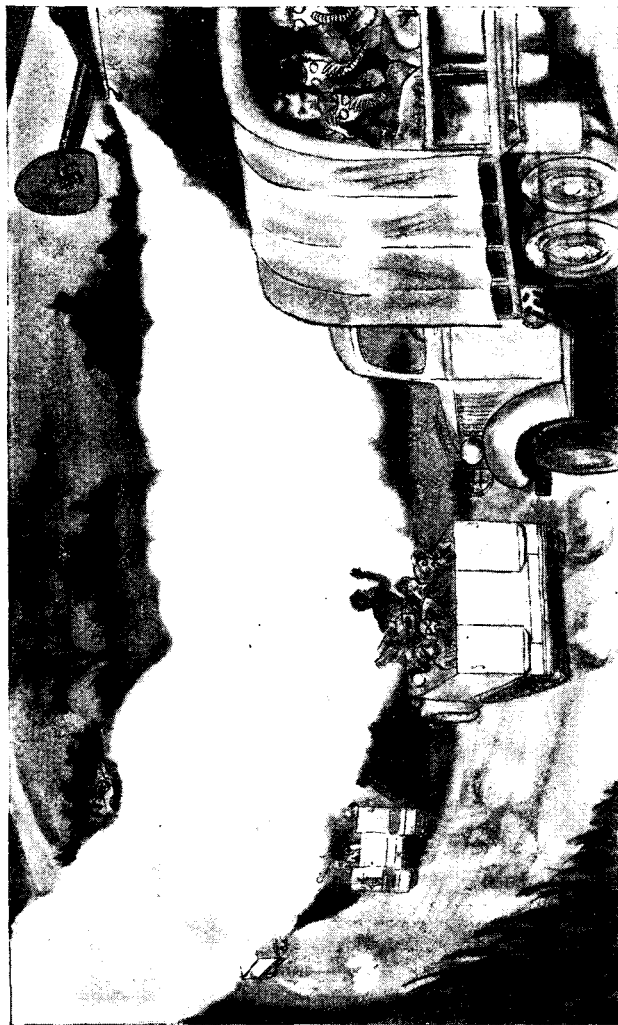


FIGURE 13.—If airplanes lay smoke on column, disperse, move into the wind. The smoke may be followed by gas. Don gas masks immediately.

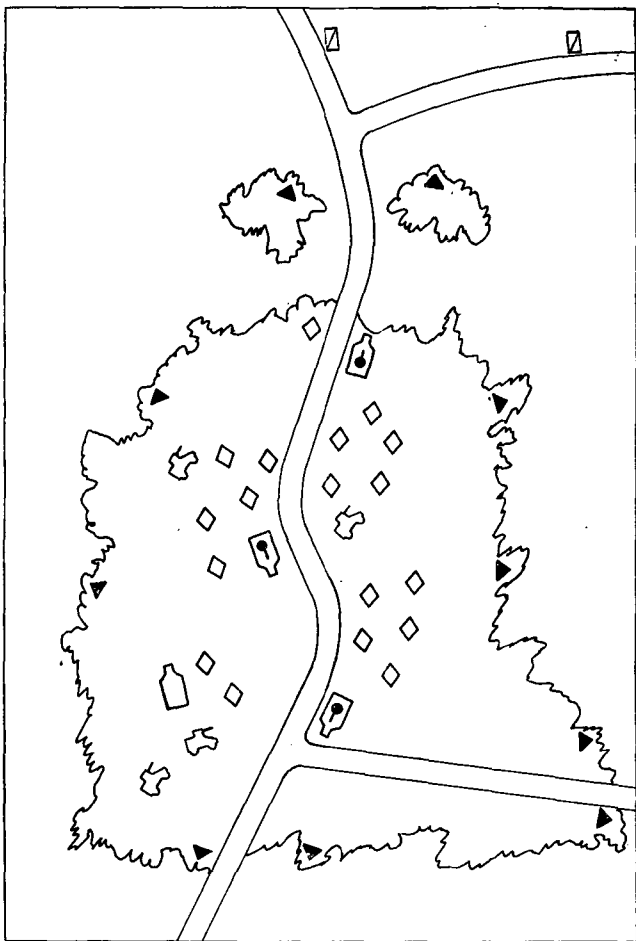


FIGURE 14.—Move vehicles off road if practicable, and conceal them. Post observers. Cover likely avenues of hostile approach with vehicular weapons. Solid triangles represent observation groups.

will travel at the rate of over 4 miles per minute. Little time is left for flashing warning to the column. Warning should be flashed as follows if airplanes are moving toward the battalion:

Air northeast (or other direction).

This is supplemented by pointing. Don't let all men look in the direction indicated. The airplanes may fly around and attack from another direction.

(2) Each vehicle must have an air sentry on the alert at all times. Noise of motors in movement will drown out noise of airplanes, so dependence must be placed on sight alone. Watch particularly for airplanes attacking low over hills or woods. Men manning antiaircraft guns should keep their weapons pointed continually to fire on airplanes making such attacks.

(3) Transmission of air warning signals is accelerated by having all radio receiving sets on the battalion frequency. This is feasible on the march as company and platoon radio sets will be silent. When any unit goes into action change to company or other frequency may be made on signal by the battalion commander. This system also assures early information of ground action reaching all units.

■ 20. SECURITY AT THE HALT.—At the halt, move vehicles off the road. If practicable, place them under cover, disperse them so that they will be at least 50 yards apart, post security detachments, and dig slit trenches.

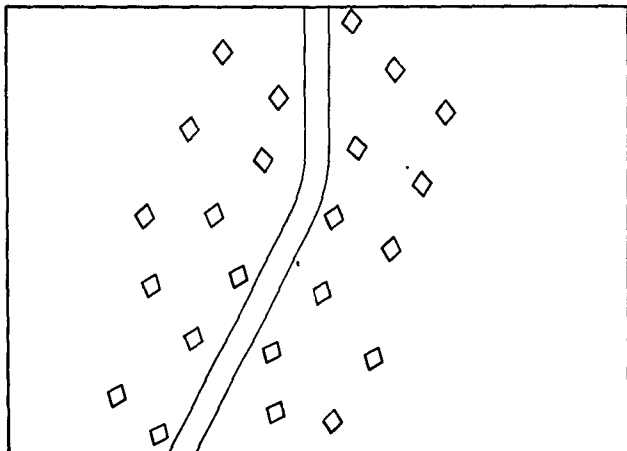


FIGURE 15.—If concealment is not available, disperse vehicles.



Figure 16.—Dig slit trenches. Inspect vehicles.

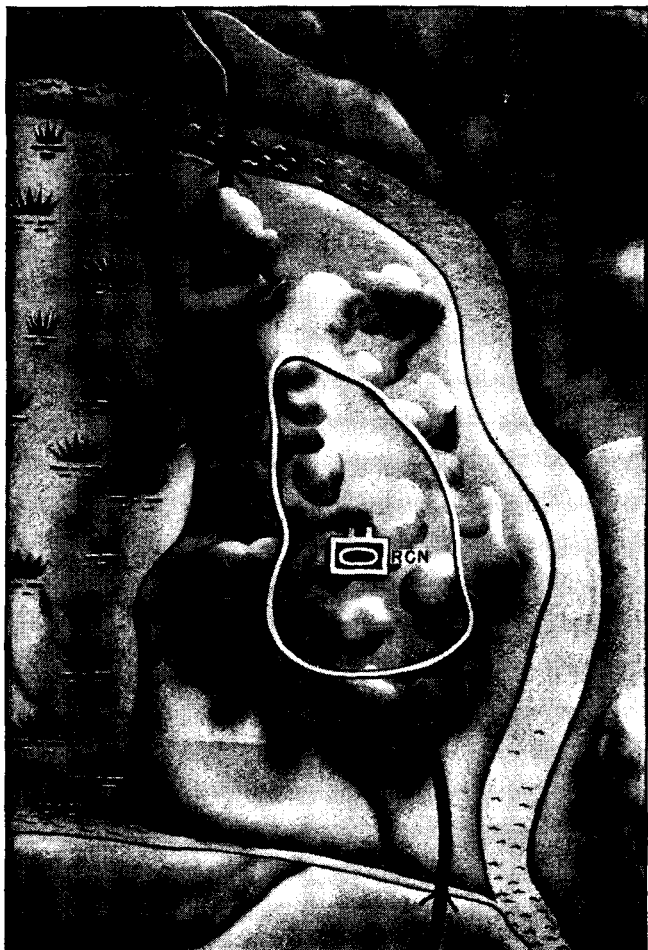


FIGURE 17.—Do not select a bivouac area that does not provide ample exits and freedom of maneuver. You may be bottled up. This area has ample concealment and protection but only two exits.



FIGURE 18.—This bivouac area takes advantage of a natural barrier and still provides freedom of maneuver.

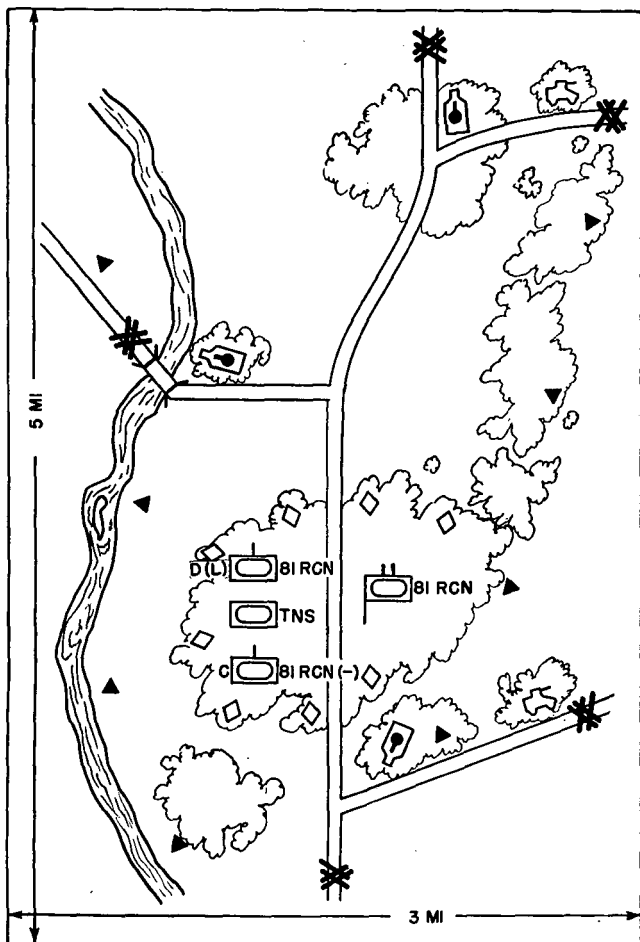


FIGURE 19.—Detail outpost. Cover avenues of hostile approach. Place trains in center for greater protection. Use road blocks. Place AT mines. Place 60-mm mortars to cover approaches. Solid triangles represent observation groups.

■ 21. SECURITY IN BIVOUAC.—a. When the battalion bivouacs, the reconnaissance companies on reconnoitering missions give

some protection from the enemy. However, the battalion must provide for its own security. The reserve reconnaissance company furnishes the outpost.

b. Security in bivouac is obtained by—

(1) Taking advantage of natural barriers such as wide streams, swamps, lakes, or extremely mountainous country.

(2) Detail of an outpost. (See FM 17-10 and FM 17-20.)

c. When practicable, select bivouac in daylight, move billeting parties in and occupy bivouac after dark; the enemy may observe these movements in daylight.

d. Make sure a definite system of recognition is in effect. Supply vehicles, kitchens, vehicles for evacuation of wounded, and messengers will be moving in and out all night. (See FM 17-20.)

e. Security from air attack is obtained by concealment, dispersion, and use of available weapons. Do not fire at hostile airplanes unless attacked or unless sure your location has already been discovered, as this will disclose your position. Dig slit trenches for protection.

SECTION VII

INFORMATION AND REPORTS

■ 22. GENERAL.—Information, no matter how accurate, is useless if not placed in the hands of the commander in time to be evaluated. Therefore, there must be a systematic and fast method of recording information and transmitting it to division CP.

■ 23. INFORMATION SOUGHT.—All information which may be of any value to the commander must be sought and reported. FM 17-10 lists specific items of information which should be obtained. In general, information required is—

a. Location of the enemy, his flanks, disposition, composition, direction of movement, strength.

b. Location of gaps or weak points in enemy defense.

c. Confirmation of information obtained by air observation.

d. Identifications.

e. Terrain, such as obstacles, cover, concealment, ground suitable for tanks, ground suitable for dismounted men only, impassable ground.

■ 24. COLLECTING AND RECORDING INFORMATION.—Collection and transmission of information by reconnaissance companies is covered in FM 17-20. At reconnaissance battalion headquarters, information is recorded and evaluated to some extent. However, information which may appear of little or no value may be of great value to the division G-2 when evaluated in conjunction with information received from other sources.

■ 25. TRANSMITTAL OF INFORMATION.—The division G-2 may designate which information is to be transmitted at once and which is to be sent in periodic reports. This may be covered in standing operating procedure. Should this not be indicated, then the battalion commander must decide. Usually information of first contact with the enemy, any large body of troops encountered, and any terrain information which is vital to the division commander in his plan of employment is transmitted at once. For methods of transmitting information, see paragraph 8.

SECTION VIII

OFFENSIVE COMBAT

■ 26. GENERAL.—Offensive combat in general is covered in FM 100-5. To gain information, the reconnaissance battalion must act quickly and aggressively. It must be prepared to fight for information. In addition to the armored cars, it has a tank company which it may use to overcome enemy counterreconnaissance or to repel an enemy attack.

■ 27. ADVANCE TO CONTACT.—a. Zones, boundaries, axis of advance, and phase lines are covered in paragraph 8.

b. As the battalion advances in its zone, increasing enemy resistance usually is met. Reconnaissance companies spread out and seek the enemy's flanks and rear, constantly reporting the situation to the battalion headquarters.

c. When the hostile covering force can be penetrated, the reconnaissance elements feel out and determine the enemy dispositions. They seek weak spots in the enemy defenses. The reserve reconnaissance company may be committed to move around the enemy flanks to his rear areas.

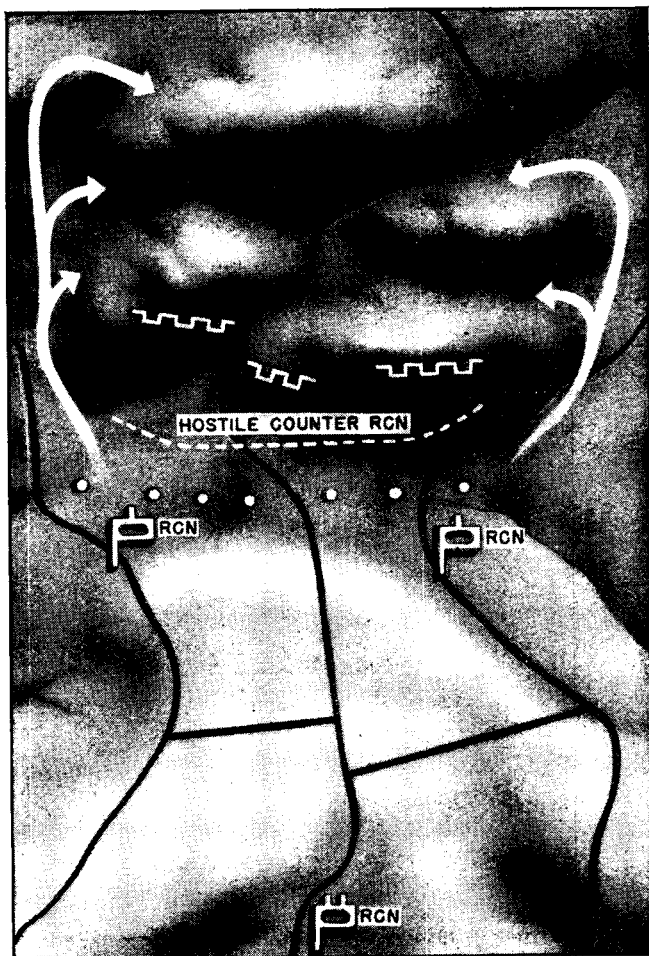


FIGURE 20.—Reconnaissance elements seek location of enemy flanks and move to his rear, if practicable. Battalion commander must watch road net so he can shift his reserve.

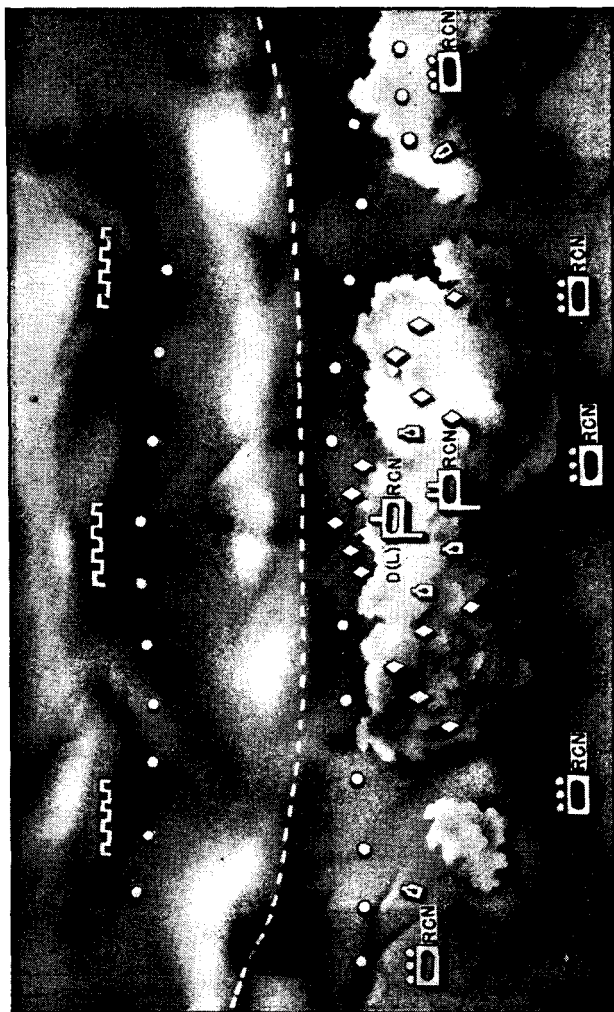


FIGURE 21.—With tank company supported by assault guns, attack through weak spots in hostile covering force.

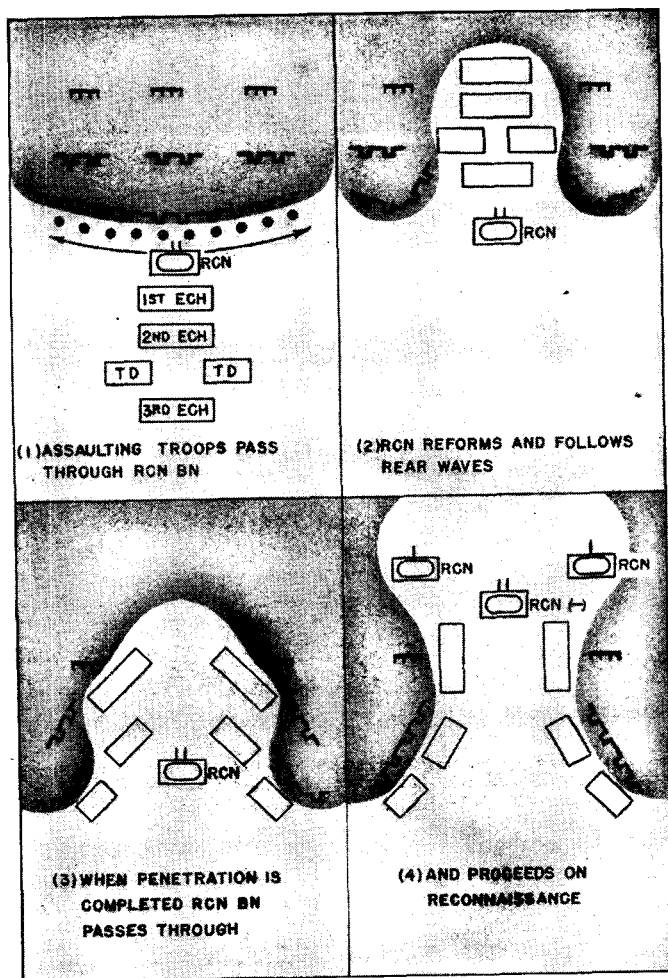


FIGURE 22.—When passed through in a penetration, the battalion reorganizes and follows the last echelon of attack.

d. When the enemy flanks are unassailable and his covering forces cannot be penetrated by reconnaissance elements, a weak place in the covering force is sought. The reconnaissance battalion commander then attacks through this weak spot with his tank company, supported by air bombardment and artillery, if available. Available assault guns of the reserve reconnaissance company and of reconnaissance platoons near the point of attempted penetration support the tank company attack. The reserve reconnaissance company moves through behind the tank company and proceeds to feel out the enemy main defenses. The tank company seeks to destroy the covering forces, thus permitting other reconnaissance elements to advance.

■ 28. COOPERATION WITH REGIMENTAL RECONNAISSANCE.—As combat commands close on the reconnaissance battalion, liaison details from regimental reconnaissance companies join their reconnaissance units. These units make detailed terrain reconnaissance and contact elements of the reconnaissance battalion in their zone. They may relieve elements of the reconnaissance battalion, thus permitting the battalion to extend reconnaissance farther to the flanks. How-

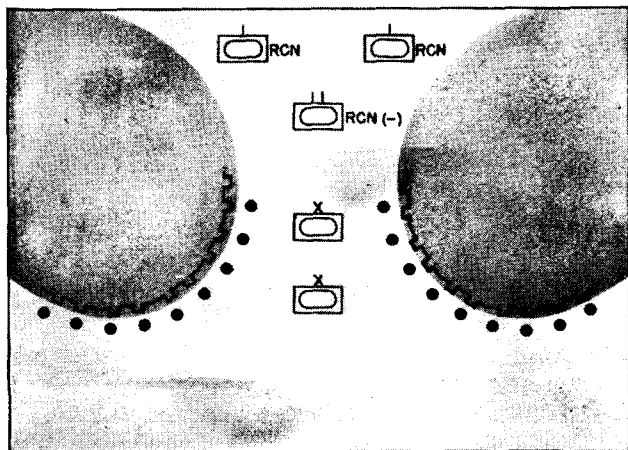


FIGURE 23.—Operation when exploiting a penetration made by other troops.

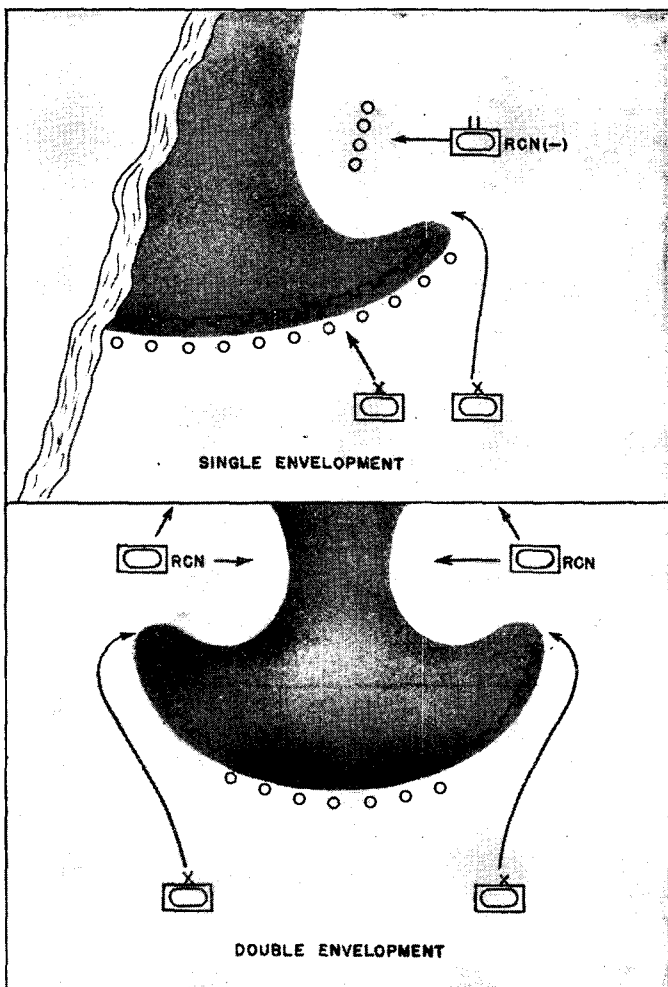


FIGURE 24.—Envelopment.

ever, such maneuver usually is impractical, and regimental reconnaissance companies may move to the flanks or be placed in division reserve. When the reconnaissance battalion is employed over a large front, regimental reconnaissance companies may take over part of the front.

■ 29. ACTION IN A PENETRATION.—*a.* When passed through by assaulting troops, the battalion is reorganized and follows the last echelon of attack, ready to move out on reconnaissance missions when the penetration has been made.

b. When the division passes through a gap in the hostile line to exploit a penetration made by other troops, the reconnaissance battalion leads.

■ 30. ENVELOPMENT.—*a.* When the division attacks by envelopment of one flank, the bulk of the reconnaissance battalion reconnoiters on the exposed flank and seeks enemy vital installations.

b. When the division attacks by double envelopment, the battalion operates on both flanks.

■ 31. SEIZING CRITICAL AREAS.—In offense, the reconnaissance battalion may be given the mission of seizing and holding a critical area until the arrival of other troops. It may be given the mission of moving forward rapidly to assist paratroops in holding such areas. The battalion moves swiftly to these areas, fighting to obtain them if necessary. It must be relieved as soon as practicable.

■ 32. PURSUIT.—When the division engages in a pursuit, the reconnaissance battalion operates with the encircling force. It gains contact with the retreating columns; operates on their flanks; locates routes that will permit reaching the heads of these enemy columns; finds and reports on routes that will enable the encircling force to avoid obstacles and hostile security elements; and locates key positions from which the encircling force may operate against the heads of the retreating enemy columns, and thus facilitate the destruction of the enemy by the direct pressure forces. This reconnaissance during a pursuit must be pushed with great vigor. (See also FM 100-5.)



FIGURE 25.—Seizing and holding a bridge.

SECTION IX

DEFENSIVE ACTION AND RETROGRADE MOVEMENTS

■ 33. GENERAL.—In defense, the primary mission of the battalion is to detect the strength and direction of movement of the enemy. As the enemy approaches, the battalion may be assigned a counterreconnaissance mission.

■ 34. COUNTERRECONNAISSANCE.—The width of the counterreconnaissance zone will vary with the terrain and the road net. Normally no more than nine roads can be covered. For counterreconnaissance missions the regimental reconnaissance companies and one or more light tank companies may be attached to the reconnaissance battalion.

■ 35. DEFENSE OF A POSITION.—When the division is engaged in defending a position, the reconnaissance battalion, reinforced as necessary, contacts the enemy, reports his strength and movements, and performs counterreconnaissance missions. It may fight a delaying action to give the defenders time to organize positions. It withdraws along previously reconnoitered routes. It seeks to lead the enemy into a false conception of the defensive position, and deceives him as to its extent and strength. For this mission the battalion may be reinforced with artillery. It is reinforced with engineers for performing demolition work. The battalion then reconnoiters to the flanks and prepares to resume the offensive or to protect a withdrawal.

■ 36. RETROGRADE.—In a retrograde movement, the reconnaissance battalion operates on the hostile flanks to establish road blocks, and to locate, harass, and delay hostile pursuing forces. Withdrawal must be effected before becoming too closely engaged. The delaying force must be kept constantly informed of the progress of the hostile troops. Contact is maintained and enemy progress reported by elements of reconnaissance companies observing the hostile route of march from positions along the flanks. These detachments harass the enemy by firing into the flank of the hostile force and quickly retiring to other points of observation. During a retrograde movement, there will be frequent opportunities

for elements of the reconnaissance battalion to prepare well-planned ambushes into which enemy troops, especially security groups, can be drawn and then annihilated. The tank company may be used with the delaying force, or may move on routes parallel to the hostile route, prepared to crush enemy security forces or other small groups. Unit commanders will ordinarily be given mission type orders in an action of this nature. Every means of communication will be used to effect coordination and control. Air cooperation is invaluable in maintaining hostile and friendly contact and in reporting targets of opportunity. This cooperation is not restricted to observation aviation but envisages the utmost use of combat aviation to operate against the heads of enemy columns and reconnaissance elements. *

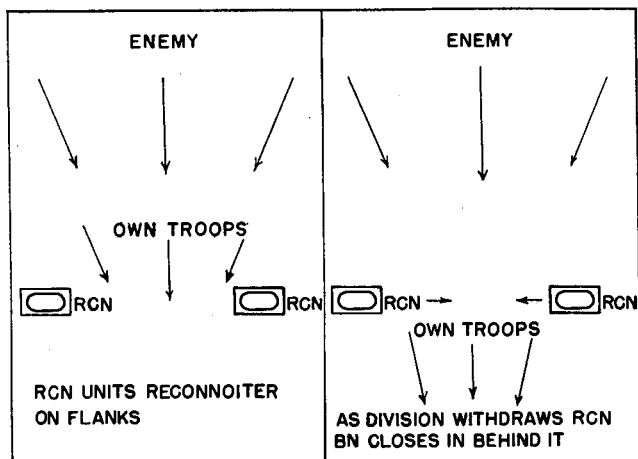


FIGURE 26.—Withdrawal.

SECTION X

SPECIAL OPERATIONS

■ 37. ATTACK OF A RIVER LINE.—a. The fundamental principles governing attack of a river line are covered in FM 100-5 and FM 17-10.

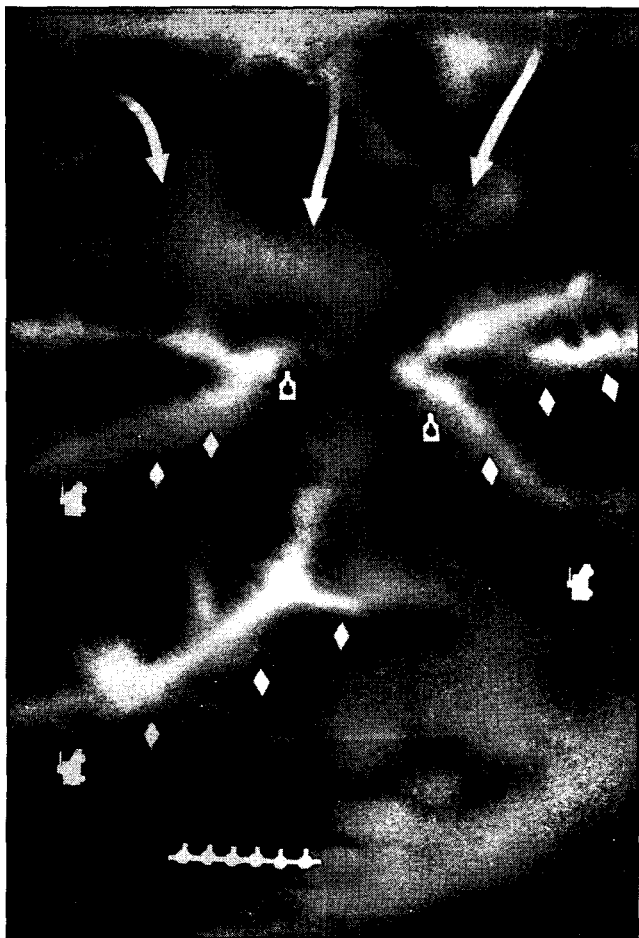


FIGURE 27.—Delaying action. Select position where weapons may be used from defilade. Select next position that will cover withdrawal from forward position. Use tanks to counterattack. Engineers destroy bridges and place mines.

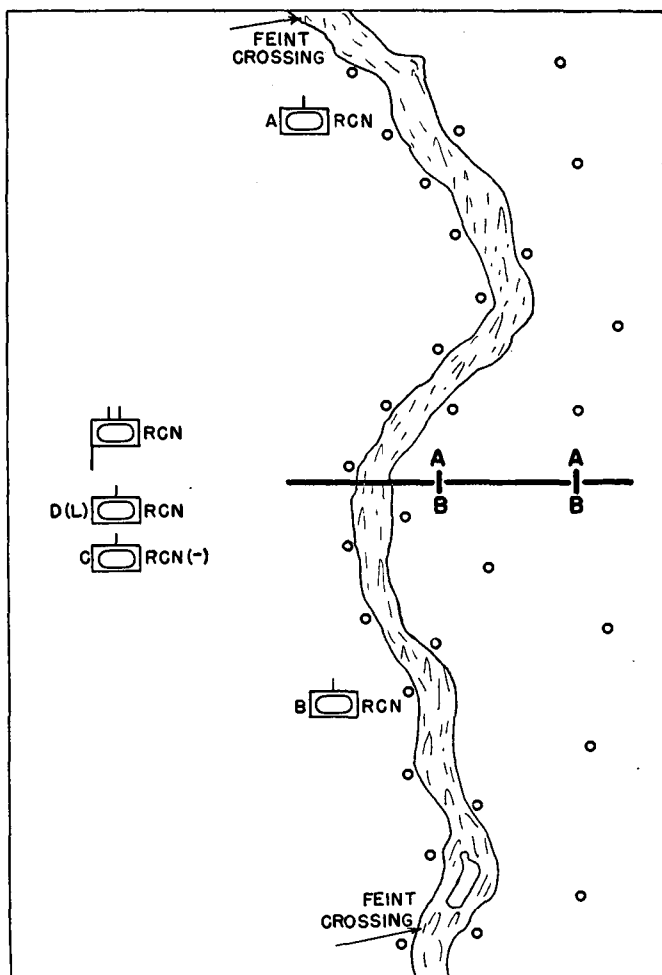


FIGURE 28.—Reconnaissance of river line is made on wide front. Dismounted patrols are sent to far bank of stream.

b. In the attack of a river line, the reconnaissance battalion, with engineer reconnaissance parties attached, reconnoiters the river line to determine the point or points for crossing and the enemy dispositions. Reconnaissance elements cross the river by means of assault boats furnished by the engineers, by swimming, by boats found along the river, by rafts, or by expedients described in FM 17-20. Dismounted men reconnoiter the river bank on both sides, if practicable. The enemy weak spots must be found.

c. A portion of the battalion may make a feint at crossing at one or more points to draw the attention of the enemy.

d. When the crossing point or points have been selected, elements of the battalion not already across the stream, prepare to cross immediately behind the infantry. If enemy resistance is light, the battalion should be ferried across right after the infantry and with the tank destroyer units. The battalion reforms and proceeds on reconnaissance. If enemy resistance is heavy, reconnaissance units cross after the bridgehead is gained.

e. A definite plan of reconnaissance for the far side of

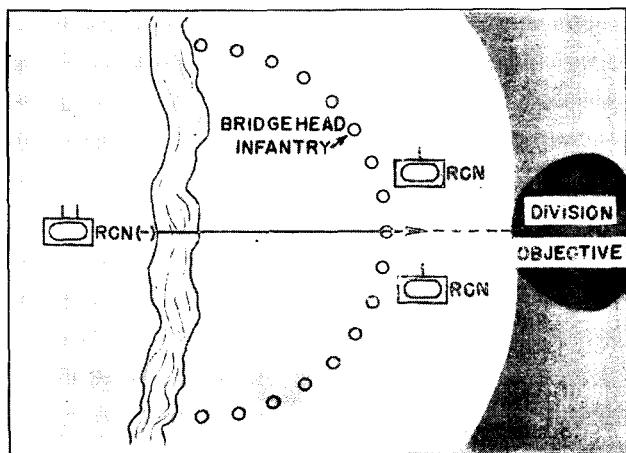


FIGURE 29.—When enemy resistance is light, reconnaissance elements are ferried across early and proceed to reconnoiter assigned zones and objectives.

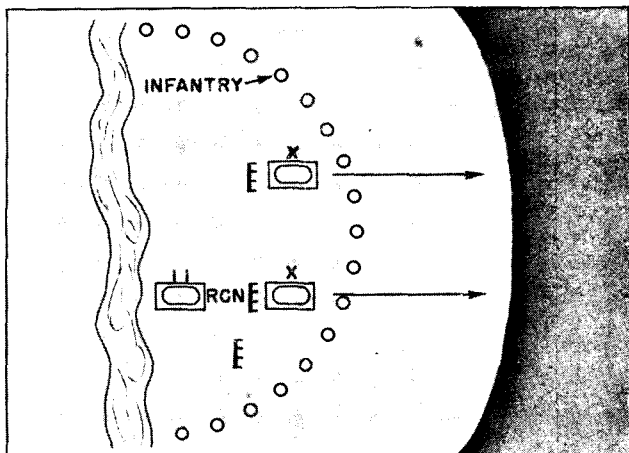


FIGURE 30.—If resistance is heavy, reconnaissance units cross after bridgehead is gained and armored regiments have crossed to attack. They follow the attack closely, ready to go out ahead after enemy line has been penetrated.

the river must be made. Reconnaissance companies are assigned zones and objectives based upon the battalion mission.

■ 38. DEFENSE OF A RIVER LINE.—*a.* See FM 100-5 and FM 17-10.

b. The armored division rarely defends a river line alone. However, should this be necessary, the reconnaissance battalion, reinforced as necessary with engineers, infantry, light tanks, and reconnaissance companies of armored regiments, performs reconnaissance and counterreconnaissance missions initially on the far side of the stream. It withdraws slowly before the advancing enemy, constantly determining his strength and direction of movement. It withdraws to previously designated crossings which may be permanent bridges, ponton bridges, ferries, or fords. Part of the battalion withdraws to the flanks to report on any enemy movements to the flank. After withdrawal to the near bank of the stream, reconnaissance units are used to patrol the stream bank and the flanks.

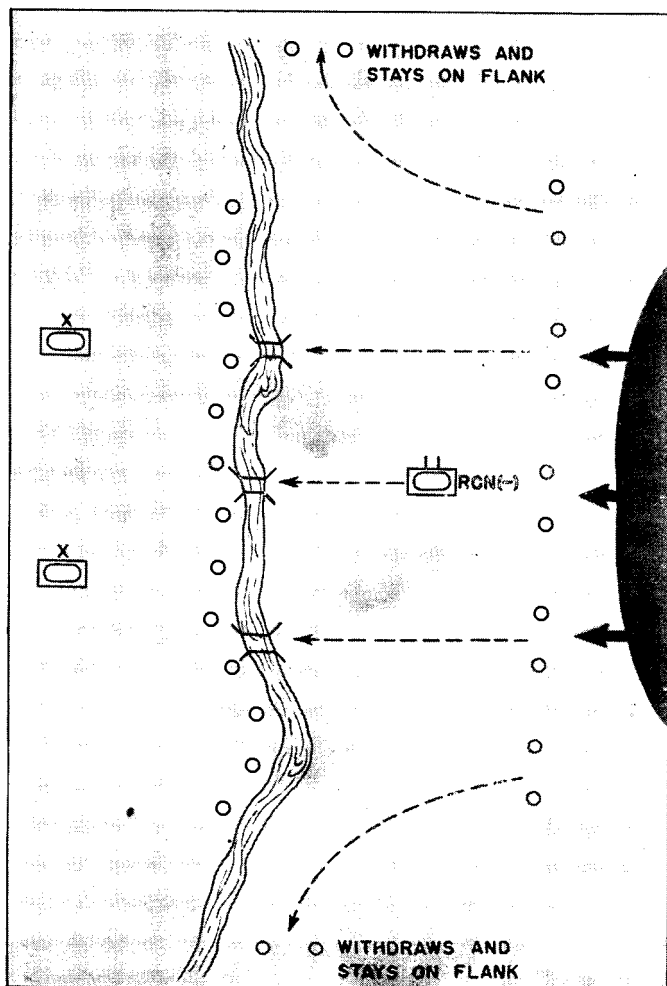


FIGURE 31.—Reconnaissance battalion in defense of a river line.

■ 39. OPERATIONS IN JUNGLE.—Operations in jungles are covered in general in FM 31-20.



FIGURE 32.—Dismount, examine trail. Look for wires across trail. If obstacles are seen, work around flanks.



FIGURE 33.—Use maximum speed in going to next point. Second car remains behind curve until first car reaches next curve. Men cover advance.



FIGURE 34.—If obstacle is seen, work around flanks. Bring mortar up so fire can be placed on enemy, if that is practicable.

a. Advance.—(1) When operating in jungles, the battalion will move in small groups on trails. The scout section will usually lead, since armored cars have little use except in large open areas (sabanas) where the ground is firm. Much of the advance will be on foot.

(2) The enemy will seek to delay the movement by placing obstacles in the narrow jungle paths, by frequent use of anti-tank mines, trip wires, and other booby traps, and by machine guns and antitank guns sighted to cover long stretches of the trail.

(3) Investigate turns in the road. Get out of the car, and with field glasses examine the trail as far as can be seen. When moving around a curve, go fast. Turn the car into the jungle at the first burst of fire. Keep the second car around the turn until the first has determined that the road is clear. A truck with a 60-mm mortar in it should be the third or fourth vehicle in column. The mortar will be of great use in overcoming defenders of a road block. Vigorous dismounted flanking action should be initiated. Be prepared for ambush. Armored cars are used to support attack by fire or by rushing enemy defenses when enemy antitank guns are not present.

(4) Cross trails must be investigated for lateral communication.

b. Delaying action.—In delaying action, antitank mines, traps, and other obstacles are placed along the trail. These are covered by weapons of the armored car placed in concealed position. Dismounted flank security groups must be employed in each case. Beware of being surrounded or cut off.

■ 40. DESERT WARFARE.—The fundamentals of desert warfare are covered in FM 31-25.

a. In desert operations it is imperative that compass direction be given. Because of the absence of land marks, odometer readings are important. Celestial navigation is used to a great extent.

b. Phase lines are specified by odometer readings or by azimuth from certain clearly defined points. In the use of this latter method it must be remembered that the mirage

in the desert and frequent sandstorms will shorten the range of vision.

c. Advance is made usually on a broad front of 40 to 50 miles with two reconnaissance companies in the advance and the tank company and third reconnaissance company in reserve near the center of the zone.

d. In addition to radio, the use of signal flags on long poles will be of great assistance in communication.

e. Security at night is obtained by placing outguards all around the reserve, close enough together to prevent enemy infiltrations.

f. There will be little concealment. Air security must be obtained by dispersion and by use of vehicular weapons.

